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July 22, 2005

RECEIVED

JUL 2 2 2005

Ms. Elizabeth O'Donnell Executive Director Kentucky Public Service Commission 211 Sower Boulevard Frankfort, Kentucky 40602-0615

PUBLIC SERVICE COMMISSION

RE: Application of Kentucky Utilities Company for Certificate of Public Convenience and Necessity for the Construction of Transmission Facilities in Franklin, Woodford and Anderson Counties, Kentucky - Case No. 2005-00154

Dear Ms. O'Donnell:

Enclosed please find an original and ten (10) copies of the Corrected Direct Testimony of Ottis Jones to be filed in the above-referenced matter on behalf of the Concerned Citizens Against the Power Line Extension.

If you have any questions regarding the enclosed, please feel free to contact me.

very truly yours,

Laurie K. Dudgeon

LDK/edl

COMMONWEALTH OF KENTUCKY BEFORE THE PUBLIC SERVICE COMMISSION

RECEIVED

JUL 2 2 2005

IN THE MATTER OF:

PUDLIC SERVICE

APPLICATION OF KENTUCKY UTILITIES COMPANIES FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY FOR THE CONSTRUCTION OF TRANSMISSION FACILITIES IN FRANKLIN, WOODFORD AND ANDERSON COUNTIES, KENTUCKY

CASE NO. 2005-00154

CORRECTED DIRECT TESTIMONY OF OTTIS JONES

- 1. Q: Please state your name and address.
- A: My name is Ottis Jones, and I live at 144 Nathan Forrest Drive, Hendersonville, Tennessee 37075.
- 2. Q: Please state the nature of your employment.
- A: I have recently retired from R.W. Beck in Goodlettesville, Tennessee. I am now an independent consultant involved in the preparation of power supply evaluation, transmission planning, financing feasibility reports, contract negotiation, rate analyses, management studies and planning studies.
- 3. Q: Please describe your educational and professional background.
- A: I am a graduate of Tennessee Technological University. I received my B.S. in Electrical Engineering in 1967. I have attached a summary of my professional experience with my testimony. (See Exhibit Number One.)
- 4. Q: Are you familiar with the present case pending before the Kentucky Public Service Commission, case number 2005-00154?
- A: Yes. I am aware that Kentucky Utilities Company ("KU") filed its application for a certificate of public convenience and necessity for construction of transmission facilities in Franklin, Anderson and Woodford Counties, Kentucky, on May 11, 2005, with the Kentucky Public Service Commission.
- 5. Q: Are you sponsoring any exhibits?
- A: Yes. A summary of my professional experience is attached as Exhibit Number One. A map of alternative routes is attached as Exhibit Number Two. And a cost analysis of alternatives is attached as Exhibit Number Three.
- 6. Q: What is the purpose of your testimony?
- A: The purpose of my testimony is to advise the Public Service Commission that in the event there is a finding of immediate need for service, there are at least two alternative routes for providing electric service from Trimble County #2 to Tyrone that are more efficient and substantially cheaper in monetary and land use costs than the route proposed by KU. LG&E/KU states that under certain contingency conditions, when Trimble County #2 is built: (1) The load on the West Frankfort to East Frankfort 138 kV transmission line exceeds the rating of the transmission line, and (2) the load on the East Frankfort to Tyrone 138 kV transmission line exceeds the rating of the transmission line. LG&E/KU proposed to construct a new 138 kV transmission line from the West Frankfort Substation to the Tyrone Substation. The two alternatives I am identifying do not impact the public and land use and LG&E/KU did not consider them to the extent that they should have. Two cases, D-1 and D-2 are presented as more efficient and improved alternatives to the proposed LG&E plan.

7. Q: What have you reviewed in preparation for your testimony?

A: The Joint Application of Louisville Gas and Electric Company and Kentucky Utilities Company ("KU") for a Certificate of Public Convenience and Necessity for the Construction of Transmission Facilities in Franklin, Woodford, and Anderson Counties, Kentucky, Case No. 2005-00154; KU's Response to the Public Service Commission's First Data Request; the KU Response to the Concerned Citizens Data Request; and The Liberty Group consultant's report dated June 14, 2005. I have also observed the physical facilities located in Franklin County, Kentucky.

8. Q: Why is KU proposing to build this line?

A: LG&E/KU states that under certain contingency conditions, when Trimble County # 2 is built: (1) The load on the West Frankfort to East Frankfort 138 kV transmission line exceeds the rating of the transmission line, and (2) the load on the East Frankfort to Tyrone 138 kV transmission line exceeds the rating of the transmission line. LG&E/KU proposed to construct a new 138 kV transmission line from the West Frankfort Substation to the Tyrone Substation.

9. Q: Is there an immediate need for this line?

A: No. There is no immediate need for this line. The need is only discussed in association with approval and construction of what has been referred to as the Trimble County #2 generating facility ("TC2"). Presently, the date of operation of this facility is estimated to be 2010.

10. Q: Is the line dependant on the approval of TC2?

A: Yes, it is. Based on my review of the information previously identified, there is no need for construction of the proposed line by KU if TC2 is not operational.

11. Q: What does "contingency overload" mean?

A: This term is used to describe loads in excess of rating on a transmission line or substation when some other transmission is not in normal service. It is not tested, but is associated with the rating of the transmission line or substation.

12. Q: Is KU currently operating any other lines in Franklin County and Anderson County?

A: Yes. KU operates several. However, approximately 10-20 years ago, LG&E/KU constructed the existing 138 kV transmission line between the West Frankfort substation and the East Frankfort substation as a double circuit 138 kV transmission line. LG&E/KU currently operates one circuit at 138 kV and one circuit at 69 kV.

Operating the transmission line as a double circuit 138 kV line will solve the contingency capacity problem between the West Frankfort substation and the East Frankfort substation *in the event* TC2 becomes operational. Since LG&E/KU has planned for a double circuit 138 kV transmission line between West Frankfort and East Frankfort when the load reached the capacity of one of the 138 kV circuits, now is the time to implement what LG&E has planned for many years.

- 13. Q: Have you identified any alternative option which would be preferable to the route chosen by KU?
- A: Based on information available, I developed two alternatives which are preferable to the proposed line and I am referring to these options as Alternative Case D-1 and D-2. The two alternatives identified solve the capacity problem between the West and East Frankfort substations as described above and solving the East Frankfort to Tyrone capacity problem.

The following is an explanation of <u>Alternative Case D-1</u> – Operate the double circuit, 7.54-mile West Frankfort to East Frankfort transmission at 138 kV and upgrade the capacity of the existing 10.62-mile East Frankfort to Tyrone 138 kV transmission line.

For Case D-1, LG&E indicated (Michael G. Toll answer to question 3, CASE NO. 2005-00154, Response to Concerned Citizens' Data Request Dated: June 30, 2005) that the following improvements would be required: Costs in \$2003 based on KU data as explained:

- 1. Rebuild 7.54 miles of 138 kV & 69 kV double circuit transmission line from West Frankfort substation to East Frankfort substation *The line is constructed for 138 kV and only minor changes should be required.*
- 2. Rebuild 10.62 miles of 138 kV line between the East Frankfort substation and the Tyrone substation- Based on KU's estimated a cost of around 505,000 per mile for a new 138 kV transmission line, an existing 138 kV transmission line should be upgraded in the range of 50% of new cost.
- 3. Install a second 138-69 kV, 93 MVA transformer in West Frankfort Estimated cost \$750,000
- 4. West Frankfort 138 kV Terminal Facilities
- 5. East Frankfort 138 kV Terminal Facilities
- 6. Tyrone 138kV Terminal Facilities

See Exhibit Number Three for cost analysis.

The cases proposed by LG&E uses approximately 181 acres of land that is not needed or used in Case D-1 (10 miles x 5,280 ft./mile x 150 feet/ 43,560 sq. ft/Acre).

The total estimated cost of this alternative is approximately \$6,000,000, which is less than any alternative considered by LG&E, and this alternative does not require additional land use.

The following is an explanation of Alternative Case D-2:

<u>Alternative Case D-2</u> — Operate the double circuit, 7.54-mile West Frankfort to East Frankfort transmission at 138 kV and convert to 138 kV approximately 8-miles of the existing 69 kV transmission line to 138 kV from East Frankfort to the 138 kV line extending east from the Tyrone 138 kV substation.

For Case D-2, LG&E indicated (Michael G. Toll answer to question 3, CASE NO. 2005-00154, Response to Concerned Citizens' Data Request Dated: June 30, 2005) that the following improvements would be required: (Changes from D-1 underlined)

- 1. Rebuild 7.54 miles of 138 kV & 69 kV double circuit transmission line from the West Frankfort substation to the East Frankfort substation *The line is constructed for 138 kV and only minor changes should be required.*
- 2. Convert approximately 8 miles of 69 kV transmission line to a 138 kV transmission line between the East Frankfort substation and the 138 kV transmission line east of Tyrone Based on a cost of around \$500,000 per mile for a new 138 kV transmission line, an existing 69 kV transmission line should be upgraded in the range of 80% of new cost.
- 3. <u>Install a 138kV-69 kV substation and 138 kV switching station</u>
- 4. Install a second 138kV-69 kV, 93 MVA transformer in West Frankfort
- 5. West Frankfort 138 kV Terminal Facilities
- 6. East Frankfort 138 kV Terminal Facilities for two lines

See Exhibit Number Three for cost analysis.

The total estimated cost of this alternative is approximately \$8,050,000 and this alternative requires less additional land use than the LG&E proposal, even if it requires additional widening of the right-of-way.

- 14. Q: Do any of these options meet KU's needs?
- A. Both of the alternatives I developed relieve the contingency loading issues identified by KU, that would exist if TC2 is operational.
- 15. Q: Would rebuilding either 138 kilovolt line make the City of Frankfort or residents of Franklin County vulnerable to an outage on either one of the remaining lines?
- A: No. In the two alternatives I developed, four (D-1) or five (D-2) 138 kV transmission lines serve the East Frankfort Substation. Currently, and in the KU proposal, only three 138 kV lines serve the East Frankfort Substation. The additional 138 kV transmission lines should improve the reliability for the East Frankfort substation.

There is the possibility that a transformer would need to be added for 69 kV capacity at the East Frankfort substation. This additional transformer, if needed, would cost approximately \$500,000. However, installation of this additional transformer could reduce or diminish the additional transformer capacity needed at the West Frankfort substation.

- 16. Q: Does "the topography of the transmission system in the area limit the construction alternatives to the proposed Tyrone to West Frankfort 138 kilovolt line"?
- A: No. I am proposing upgrading or rebuilding existing transmission lines on existing right of ways. This is generally the method of having the least impact on the community and environment.
- 17. Q: Will this line proposed by KU result in any unnecessary duplication of facilities?
- A: Yes. Absolutely. Underutilized lines already exist that could serve KU's needs in the event TC2 becomes operational in 2010. KU constructed the East Frankfort to West Frankfort 138 kV double circuit line and began operating it at 138 kV and 69 kV until it was needed to serve the public. Now the need has been stated by KU. There does not seem to be an argument to reserve the capacity until some future need arises.
- 18. Q: Is the route chosen by KU serving the interests of public convenience and necessity?
- A: No. The transmission line as proposed by KU will use approximately 181 acres which will not be necessary under the least cost alternative I developed. It is more convenient for the public for KU to utilize existing rights of way and existing transmission lines.
- 19. Q: Do you have a recommendation for this Commission?
- A: Case D-1 in my Summary is preferred over the proposal by KU. It is more economical and causes less impact on public convenience.
- 20. Q: Does this conclude your testimony?
 - A: Yes.

VERIFICATION

The undersigned, Ottis Jones, being duly sworn hereby verifies that the statements contained hereinabove are true and correct to the best of my knowledge and belief.

Ottis Jones

| COMMONWEALTH OF KENTUCKY |) |
|--------------------------|---|
| |) |
| | , |
| COUNTY OF FRANKLIN |) |
| CARINET OF TAXABLE | , |

Subscribed and sworn to before me, by Ottis Jones, on the M' day of July, 2005

NOTARY PUBLIC

My Commission Expires: $8/\sqrt{8}$

CERTIFICATE OF SERVICE AND FILING

Undersigned counsel certifies that an original and ten photocopies of this Motion for Leave for Extension were served and filed by hand delivery upon Elizabeth O'Donnell, Executive Director, Kentucky Public Service Commission, 211 Sower Boulevard, Frankfort, Kentucky 40601; furthermore, it was served by mailing a true and correct copy of the same, first class postage prepaid to the following counsel for Kentucky Utilities Company, by first class mail, postage prepaid, as follows:

Kendrick R. Riggs J. Gregory Cornett OGDEN NEWELL & WELCH PLLC 1700 PNC Plaza 500 West Jefferson Street Louisville, Kentucky 40202 (502) 582-1601

Robert M. Watt, III Lindsey W. Ingram, III STOLL, KEENON & PARK, LLP 300 West Vine Street, Suite 2100 Lexington, Kentucky 40507 (859) 231-3000 Elizabeth L Cocanougher Senior Regulatory Counsel LOUISVILLE GAS AND ELECTRIC COMPANY 220 West Main Street Post Office Box 32010 Louisville, Kentucky 40232 (502) 627-4850

All on this the day of July, 2005.

Robert C. Moore

Laurie K. Dudgeon

EXHIBIT 1

Ottis Jones is a Consultant. Mr. Jones' experience encompasses utility engineering, operating and management. Mr. Jones has extensive consulting experience. He is presently involved in the preparation of power supply evaluation, transmission planning, financing feasibility reports, contract negotiation, rate analyses, management studies, and planning studies.

Tennessee Technological University, B.S. Electrical Engineering

Volunteer State Community College: A.S. Business and Commerce

EXPERIENCE

Consultant, Hendersonville, Tennessee 2003 to present.

Consultant to various utilities relative to utility system power supply, transmission planning and construction, and

R. W. Beck, Inc., Goodlettsville, Tennessee, 1989 to 2003, Principal.

Principal in a National Engineering Firm providing engineering services principally in the Southeast relative to the design operation and maintenance of Electric Utilities.

R. W. Beck, Inc., Nashville, Tennessee, 1986 to 1989,

Executive Engineer.

Provided consulting services to Electric Utilities in the TVA area relative to the design, operation, and maintenance of Electric Utilities.

Allen & Hoshall, Nashville, Tennessee, 1983 to 1986,

Engineer and Manager of Nashville Office.

Provided consulting services relative to the design, operation, and maintenance of Electric, Wastewater, and Gas Utilities.

R. W. Beck, Inc., Denver, Colorado, 1979 to 1983,

Principal Engineer.

Provided consulting services relative to the design, operation, and maintenance of Electric Facilities for Utilities and Industries.

Tri-County Electric Membership Corporation, Lafayette, Tennessee, 1976 to 1979, General Manager.

Managed overall operations of Electric Cooperative.

Tri-County Electric Membership Corporation, Lafayette, Tennessee, 1973 to 1976,

Superintendent of Engineering and Operations.

Supervised the engineering and operations of Electric Cooperative relative to design, construction, operations, and maintenance.

Tri-County Electric Membership Corporation, Lafayette, Tennessee, 1969 to 1973,

Chief Engineer.

Supervised and performed engineering, planning, and design of all distribution facilities.

Florida Power and Light Company, Cocoa, Florida, 1967 to 1969, Field Engineer.

Performed engineering design for underground and overhead electrical facilities.

His utility experience spans more than 30 years, which includes 12 years in utility engineering, operations, and management; two years with a large investor-owned utility; and 10 years with a large distribution cooperative.

He has extensive consulting experience in preparing financing feasibility reports, contract negotiations, rate analyses, management studies and planning studies.

In addition, his consulting experience includes energy resource planning, energy supplies, rate, and contract negotiations, and providing expert testimony. He prepared planning, modeling and analysis of electric, water, and gas distribution systems, and prepared, directed, and negotiated development and revision of retail rates for electric, water, wastewater, gas and CATV systems.

He directed and participated in multi-utility management, financial, energy, and operational studies and reviews for various combinations of electric, gas, water, wastewater, CATV, and transportation utilities. He also performed studies of mergers and acquisitions, and assisted in the development of new entities to meet competitive market pressures.

He managed and participated in appraisals and valuations of utility assets. In one engagement, he served as a project manager for electric utility transmission and distribution system valuation that included a conversion of a field inventory to a complete asset unit valuation. He also played a key role in valuations, which involved the potential sale of electric generation and distribution property and for estimating stranded costs in a deregulated environment.

EXHIBIT 2

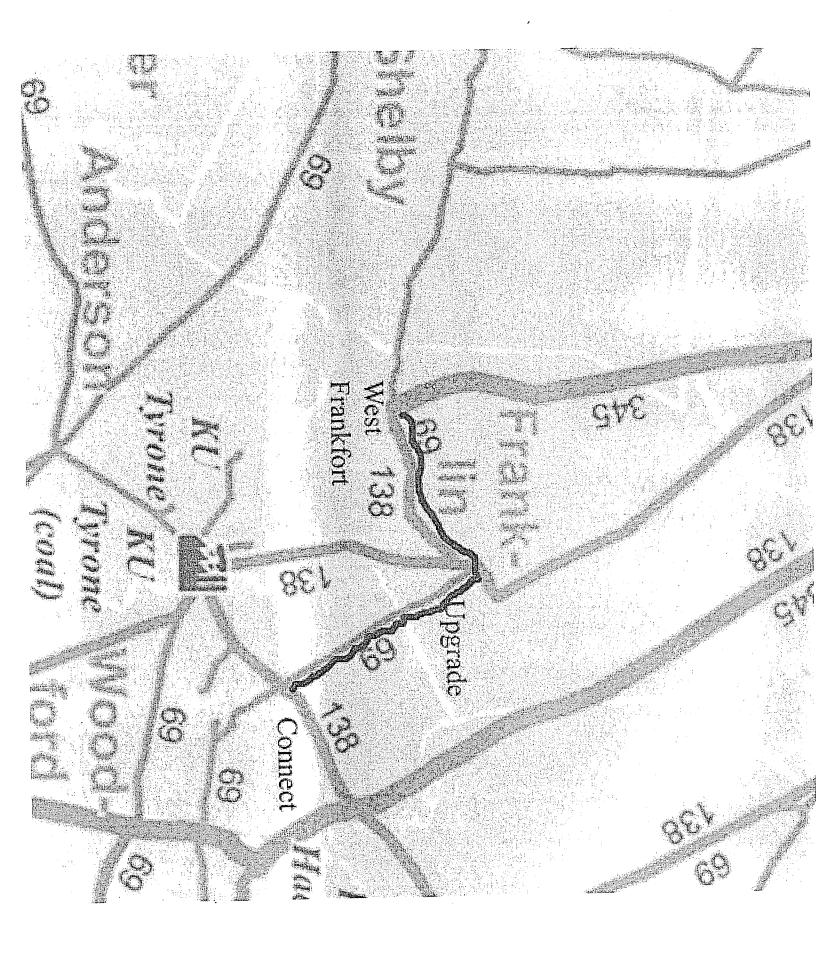


EXHIBIT 3

Kentucky Public Service Commission KU Transmision Line Proposal West Frankfort to Tyrone 2003 cost Estimates

| 2003 cost Estimates | |
|--------------------------------------|------------------------------|
| | Cost per |
| | Mile |
| As Developed by KU | Including R/W Miles |
| West Frankfort 138 kV Terminal Facil | \$ 783,156 |
| Tyrone 138 kV Terminal Facilities | |
| W. Frankfort to Tyrone | \$ 504,980 12.4 \$ 6,261,750 |
| Total | |

Estimated alternative costs based KU cost per mile and terminals

| | 8,050,000 | 69 | 7,950,607 | €9 | | | |
|---|---------------|-----------------|-----------|----------|---------|--------|---|
| • | 2,000,000 | 69 | 2,000,000 | € | | | Substation - 138-69 kV |
| | 750,000 | 69 | 750,000 | ↔ | | | Install 93 MVA 138-69 kV transformer (W. Frankfort) |
| | 3,300,000 | 69 | 3,231,871 | €9 | | | Fast Frankfort to 138 kV connection |
| | 900,000 | €9 | 885,580 | 2 \$ | | | Fast Frankfort 138 kV Terminal Facilities |
| | 800,000 | €9 | 783,156 | €9 | | | West Frankfort 138 kV Terminal Facilities |
| | 300,000 | 69 | 300,000 | €9 | | | West Frankfort to Fast Frankfort conversion to Double Circuit |
| | | | | | | | Alternative D 2 |
| | \$ 6,000,000 | | 5,940,545 | €3 | | | |
| | 450,000 | 1 | 442,790 | ↔ | | | Tyrone 138 kV Terminal Facilities |
| | 750,000 | 69 | 750,000 | €9 | | | Install 93 MVA 138-69 kV transformer (W. Frankfort) |
| | 2,700,000 | €9 | 2,681,443 | ↔ | | | East Frankfort to Tyrone 138 kV upgrade |
| | 800,000 | 6∕ 9 | 783,156 | ₩ | | | Fast Frankfort 138 kV Terminal Facilities |
| | 800,000 | 69 | 783,156 | ↔ | | | West Frankfort 138 kV Terminal Facilities |
| | 500,000 | 6/9 | 500,000 | €9 | | | West Frankfort to East Frankfort conversion to Double Circuit |
| | | | | | | | |
| Miles estimated from PSC Transmission Map | iles estimate | X | 3,231,871 | 8 \$ | 403,984 | ↔ | East Frankfort to 138 kV connection |
| | | | 2,681,443 | 10.62 \$ | 252,490 | ↔ | East Frankfort to Tyrone 138 kV upgrade |
| | | | | | 403,984 | | Cost to convert 69 kV |
| | | | | • | 252,490 | 50% \$ | Cost to improde 138 kV |